

**Minutes of the Carlisle Board of Health
October 9, 2007
Approved 11/13/07**

Present: Board Members Jeffrey Brem (Chairman), Michael Holland, Bill Risso, Chris Deignan; Leslie Cahill; also present: Linda Fantasia (Agent), Rob Frado (TCG),

The meeting was called to order at 7:35 p.m. at the town hall.

MINUTES – It was moved (Risso) and seconded (Deignan) to approve the minutes of 9/25/07 as revised. Motion passed 4:0 (Holland had not arrived).

BILLS – It was moved (Risso) and seconded (Cahill) to approve the bills as presented. Motion passed 4-0 (Holland had not arrived).

ADMINISTRATIVE REPORTS

90 Page Brook Road – the developer for the adjacent lot (map 13 parcel56) called the office to ask that the Board maintain the minimum setback distance from the proposed well at 90 Page Brook to the system being designed for his lot. Fantasia informed him that the Board had conditioned this as part of its approval for 90 Page Brook Road. Frado reported that he had met at the site with Jeff Hannaford, engineer, and owner, Dave Reed. Because of the topography and a large stand of trees they were not able to locate the well close to the road. The new location provides approximately 20-30 additional distance from the side lot line. Frado would like the driller to set the final site with his approval.

Social Worker Position – Fantasia reported a very positive interview with Phoebe Durant Shen. COA has another person interested, but they have not submitted a resume. The Board agreed that if the current candidate is agreeable, she should be offered the job. The position is grant funded through June and the Board would prefer to start using the money.

It was moved (Cahill) and seconded (Deignan) to offer the position of part-time social worker to Phoebe Durant Shen at the rate of \$27.00, without benefits, as a grant funded position through June 30, 2008. Motion passed 4:0 (Holland had not arrived).

Cahill suggested checking with the school department to identify how they might use the social worker.

Kimball's Ice Cream Stand – Fantasia had spoken with Mike Wall of DPH. Although some of the ice cream product exceeded the acceptable levels for bacteria, the state did not think it met the criteria for a food recall or public health alert. The initial problem was with the well water at Kimball's in Westford which had a count of 1 coliform. All of the ice cream is manufactured in Westford. It is only sold in Carlisle. The well problem has been resolved. A follow up state inspection of the manufacturing plant however revealed problems that need to be addressed. These will be taken care of prior to opening next spring. New product is being tested regularly until the end of the fall season.

259 South Street – emergency waiver for new well. Skillings and Sons reported that the well had run dry. This was also documented by the owners. Since the existing well was only 65' from the leaching area and had problems in the past, a new well was recommended. The well driller proposed to locate it in the front yard, maintaining a 100' offset to the leaching area. There are wetlands on both sides and to the rear of the property. Since it was not possible to meet the 25' setback to the front property line Fantasia had checked with Brem for an emergency waiver since the household had no water. Brem agreed to allow the well up to 12 ½ feet from the property line similar to another recent request. The waiver now needs to be ratified by the Board. Ralph Metivier had checked the setback which is 22' from the pavement including a 5-6' right of way for an approximate setback from property line of 17'. The abutter closest to the well was informed about the location. The location meets the Title 5 setback to the leaching area. Brem said there was little choice in the location and the household was without water. It was an emergency situation.

It was moved (Deignan) and seconded (Risso) to ratify an emergency waiver from the Town of Carlisle Water Supply Regulations to allow a replacement well to be located up to 12 ½ feet from the front property line for 259 South Street, Carlisle MA. Motion passed 4:0 (Holland had not arrived)

PH 36 LOG HILL ROAD – replacement of a failed soil absorption system. Plan entitled: “Subsurface Sewage Disposal System, #36 log Hill Road, Map 5, Blk 42 Lot 7A, owned by Ciampa, designed by Norse Design Services, Inc. revised 9/28/07”. Waivers requested: 310 CMR 15.00 Title 5: 15.405(1) (e): Minimum setback distances from bordering vegetated wetlands for septic tank and pump chamber 25’ required, 27 and 20’ provided respectively; 15.405(1)(h) Depth to groundwater: 4’ separation from bottom of leaching bed required, 3’ provided. Carlisle Supplementary Sewage Disposal Regulations: 15.211 Distances – septic tank, pump chamber and soil absorption system to wetlands 100’ required, 27’, 20’ and 83’ provided respectively; 15.211 Distances – septic tank and pump chamber to well 100’ required, 53’ provided; 15.221 General Construction – leaching facility not designed for garbage grinder.

Present for the hearing was Jeff Hannaford, design engineer. Joan Leftwich and Charles Leftwich of 24 Log Hill Road were also present. Abutter notifications were submitted.

Hannaford explained that the site is very limited due to wetlands along the side and rear of the property. The existing sewer line exits at the rear of the house and would be difficult to change. The tank and pump chamber will be to the rear of the property. The well will be relocated to the side rear of the property. The leaching area which consists of infiltrator chambers will be located in front of the house to maximize distance to wetlands. The land slopes in this area and there is a large knoll. A retaining wall will be installed along the roadway. Both local and state waivers under maximum feasible compliance are required for distances to wetlands and the new well. The system is not designed for a garbage grinder. Required separation to groundwater is only missing at the uphill end of the leaching area. The downhill side meets the 4.0’ requirement. To meet the full 4.0’ offset at the uphill end would require the retaining wall to be 1.0’ higher and would result in little benefit. Because of the extensive wetlands to the rear and the existing sewer line, Hannaford had to work with the existing grades and a large knoll in the front.

The Board asked about access to the new well location and the potential for disturbance to the buffer zone. Hannaford said the Conservation Commission will provide conditions. The design calls for a monolithic tank and pump chamber which have all the joints at the top to reduce leakage. The Board then asked whether a title 5 inspection had been done. Hannaford presented a letter from Fred Weir, a Title 5 Inspector, identifying the failure. The Board found that based on the letter the system has failed and is eligible for waivers under 310 MCMR 15.405. Frado stated that the proposed design meets the eligibility requirements under maximum feasible compliance.

Joan Leftwich was concerned about her well. Hannaford said he had checked with Charles Leftwich and the well is at least 100’ from the proposed SAS. Joan Leftwich said she has no records for her property and is not sure where her SAS is located. The Board explained that this is not as important as setback to a well. Risso suggested staking the property line since the proposed SAS is only 22’ from the Leftwich property. Leftwich was also concerned about losing mature trees along this line. Staking the line prior to construction will help.

The Board noted that tank and pump chamber were farther from wetlands than indicated on the plan. Hannaford agreed. The Board then agreed on the following conditions: design engineer to stake the lot line at the Leftwich side prior to construction; new well to be operational and the existing well decommissioned prior to bringing the system online, mark cover over effluent tee as required by Title 5, record the garbage grinder deed restriction.

It was moved (Deignan) and seconded (Risso) to grant a waiver under 310 CMR 15.405(1) (e) for location of septic tank and pump chamber 20’ from wetlands. Motion passed 4:0 (Holland had not arrived).

It was moved (Deignan) and seconded (Risso) to grant a waiver under 310 CMR 15.405(1)(i) for 3.0' depth to groundwater. Motion passed 4:0

It was moved (Deignan) and seconded (Risso) to grant a waiver from the Town of Carlisle Supplementary Sewage Disposal Regulations 15.221 General Construction Requirements for system not designed for a garbage grinder. Motion passed 4:0

It was moved (Deignan) and seconded (Risso) to grant the following waivers from the Town of Carlisle Supplementary Sewage Disposal Regulations 15.211 Minimum Setback Distances for tank and pump chamber to wetlands, 100' required, 20' provided; tank and pump chamber, and SAS to well, 100' required, 53' and 83' provided respectively. Motion passed 4:0

It was moved (Deignan) and seconded (Risso) to stake the property line, have the new well operational and the existing well decommissioned prior to construction, proof of recording of the garbage grinder deed restriction prior to construction and Conservation Commission to review the plan. Motion passed 4:0

It was moved (Deignan) and seconded (Risso) to close the public hearing. Motion passed 4:0

**HANOVER HILL DEFINITIVE SUBDIVISION PLAN - Applicant: Wilkins Hill Realty LLC,
Prepared by Stamski & McNary, Dated September 6, 2007.**

Present for the discussion were Rob West, applicant, and Bob Blanchette of Stamski & McNary. (Holland arrived at the meeting).

A definitive subdivision plan must be submitted to the Board of Health for comments. The Board's responsibility is to make recommendations to the Planning Board as to whether the proposed building lots can be constructed impacts to public health, in particular water pollution. The Board is required to comment within 45 days of filing (due 10/26/07). The Board had previously reviewed the Preliminary Subdivision Plan.

According to Frado's technical review dated 10/8/07, each of the lots proposed could support a soil absorption system. Final septic designs may require additional testing. According to Blanchette additional testing for Lot 24 has been scheduled. There have been some changes in lot designations. Updated plans will be filed at a later date. All of the lots comply with local zoning. Frado said in general the soils are consistent with supporting leaching areas. There are multiple test locations on each lot. Brem asked about the wetlands. Blanchette said they had filed an Abbreviated Notice of Resource Delineation (ANRD) and been issued an Order of Resource Area Delineation (ORAD). Eventually they will file for a Notice of Intent (NOI) for the roadwork. Brem asked whether the proposed up gradient infiltration basin to Lot 11 would have any impact on the leaching areas. Blanchette said drainage will be reviewed by the Planning Board. He did not think that particular infiltration basin would be a problem since it is almost at the same elevation as the nearby lot and the SAS will be mounded. The development is a straight subdivision. The Conservation Restrictions are already in place. Michael Epstein (Planning Board member present for a later hearing) noted that the last subdivision was in 1997; since then most have been special permits for conservation clusters. West noted that some of the lots will be Approval Not Required (ANR's).

Blanchette noted that local regulations are frozen at the time of filing. Since the Board is considering revising its local regulations, the developer would like to discuss the applicability of those regulations when adopted should there be a benefit to the subdivision. The Board agreed. Cahill asked about plans for a 40B development. West said there are no plans for a 40B development. The Board agreed to take the plans under consideration for the next meeting on 10/23/07. Blanchette agreed to forward the plans in pdf.

CARLISLE SUPPLEMENTARY REGULATIONS – continued discussion of revisions under consideration. Present for the discussion were Michael Epstein, Kent Gonzalez of the Planning Board and Ed Rolfe of the Zoning Board of Appeals. Douglas Stevenson of the Board of Selectmen later joined the discussion.

Rolfe submitted his comments to the Board. David Freedman (Planning Board) had also sent an email.

Brem explained that there are two major revisions still under consideration: setbacks to wetlands and garbage grinder allowances; other changes have been mainly minor procedural points.

Brem said that many towns impose a specific GPD rather than a 50% garbage grinder allowance. Oversized systems can negatively impact the land and if the load vs. size is out of balance the system may not function properly. Risso said a larger leaching area helps to prolong the life of the system. Holland disagreed stating that failure is usually the result groundwater not small leaching area. The Board briefly explained the importance of a biomat and how it forms in a leaching area. Cahill pointed out that a large system's inability to form a biomat may be a good reason for keeping the 100' setback to wetlands. Holland said this is known as "creeping" failure – when the biomat becomes laterally affected. Brem handed out copies of a 1991 study prepared by the state which states that the optimal size for a system is 110 GPD per bedroom. Board of Health should strongly consider the science behind these studies. Zoning issues should be left to the other land use boards. Risso said it is important for the land use boards to work together for what is in the best interest of the town. A Board of Health regulation is stronger than a Planning Board's recommendation. Brem said that it is possible to sometimes get a bad design for a lot due because of local regulations. Reducing the setback is not intended to make it easier for a developer, but to get the best possible design for a site. Gallons per day, setbacks and flow rates are all interrelated. Less regulation allows more flexibility which is preferable over granting variances. Holland said local regulations are not intended to prevent development. Risso agreed but added that unintended benefits may be perpetuated in a large development. Deignan felt that individual lots present a different picture than a large development. (Cahill left the meeting)

The Board then reviewed a proposed GPD table based on Title 5 design flows with a slight increase. This would be a compromise to the 50% garbage grinder allowance. Brem said this is in keeping with the state study which was written in 1990-91 and based on data since 1962-1968 so it has a history. The Board then asked for comments from audience.

Michael Epstein explained that the Planning Board had made major changes to its regulations in 1997. Before that time, developers had by-right plans with little design planning. The new regulations were more restrictive but could be waived. This results in developers conferring with the Planning Board about design alternatives via waivers. The regulations may be stronger than needed in most cases, but result in more discussion. The Planning Board is able to significantly influence the design.

Brem explained that the process is different for the Board of Health. If a design is in compliance with local and state regulations, it will be approved by the Board's agent and consulting engineer. Most plans do not go before the Board, only those that need waivers. Epstein agreed that a conceptual plan is important for a large development, but may not apply to a single lot. He also suggested that the Board seriously consider regulating large systems. He cautioned that using a specific size rather than site conditions may result in poorly designed systems being overlooked. Brem said that Title 5 already has a 2000 GPD restriction. Epstein suggested looking to Lincoln which has the garbage grinder allowance for input. He also noted that Boxboro requires all subdivisions and ANR's to do hydrological studies. Holland said separating multi-family from single family systems, possibly using a 1000 GPD threshold. In his experience a groundwater mounding analysis does not always result in significant impacts. It depends on the soil characteristics. He agreed that the Board does have the right to look at accumulative impacts. Epstein said developers will separate out the permits to avoid triggering more restrictive standards. Holland said this happened at Laurel Hollow which was created as two separate lots.

Epstein asked about nitrates which are regulated in Boxford. Brem explained that all of Carlisle is a nitrogen sensitive area because of private wells. Title 5 has a 440 GPD per acre nitrogen loading limit. Holland said that the Board has tested for nitrates specifically in the center and as a result of the bi-annual voluntary well testing. No problems have been identified. Epstein, who is an abutter to Coventry Woods, said he was concerned that the development had two 3,000 leaching areas and one 5,000 area. Holland said the overall land area would still meet the nitrogen loading limitation. Epstein would like the Board to consider

addressing nitrogen for larger systems. The Board agreed that it will consider more restrictive regulations for larger systems.

Brem said the most significant waiver the Board grants is reduction in separation to groundwater because this is the primary means of treating effluent prior to discharge to the water table. Horizontal setbacks do not have the same importance and can often cause significant disruption to the site. This is the main reason he would like to change the requirement.

Kent Gonzalez said he sees many poor designs based strictly on regulations rather than common sense. Overdesign does not always make sense. Granting waivers is an inefficient process for getting better designs. He would suggest encouraging consultation with the Board. Brem said there is little incentive if the system could be built in full compliance.

Ed Rolfe as a homeowner would like less regulation but not at the cost of public health. He noted that Title 5 refers to “minimal” standards which are why the local board is authorized to adopt its own regulations. This is a very important right. He provided the Board with written comments based on his experience on the Zoning Board which the Board took under advisement.

Epstein also asked the Board to consider regulating retaining walls. Boxboro does not allow retaining walls for systems over 2000 GPD. Brem agreed that retaining walls can be a problem when part of the design of a system. In a septic design a retaining wall must hold back hydrostatic pressure in lieu of breakout grading. This becomes important when a system is close to a property line. Some towns do distinguish retaining walls used for soil absorption system grading. Harvard classifies any wall above a certain height as a structure which must comply with zoning.

Epstein was worried about not having a minimum size leaching and reserve area. The Board noted that this is covered in Title 5. To summarize his points, Epstein asked that the Board address (1) large systems (2) the need for hydrological studies, (3) consider the permeability of soils when setting setbacks and (4) aggregation of systems.

Brem said that if a problem is identified, there is the question of how to resolve it. He definitely thinks the Board should require monitoring wells on some sites. One type of monitoring well determines contaminants; the other determines flows.

Epstein suggested considering the conditions imposed by ZBA and how they might be regulated. The Board agreed to look into the Coventry Woods conditions. (Stevenson arrived).

Brem summarized for the audience that the Board is looking to update the local regulations based on the latest changes to Title 5. Some items are housekeeping ones. Other items include looking at large systems, flow rates, setbacks to wetlands, the problem with large mound systems, overclearing and environmental impacts. Brem feels that the vertical separation is more significant than the horizontal one. Not all Board members agree. Stevenson asked that the Board summarize the points for the other boards. There was no further discussion.

ADMINISTRATIVE REPORTS continued

EDS Exercise – tentatively 11/14/07.

Bingham Road Property – the tenants have moved out. The landlord is having the place cleaned out and repairs done.

Community Septic Management Program – Fantasia spoke with Nihar Mohanty of DEP about the septic loan program. Money is still available. The Board considered applying in 1997 but the Selectmen did not approve because of the need for collecting betterments. There are two programs available: \$200,000 which requires a plan to inspect every system on a regular basis, and \$100,000 which can be loaned to qualified

homeowners needing to upgrade failed or non-conforming systems. Since joining the program will require a town meeting vote, the Board agreed to meet with the Selectmen for their support. Mohanty is willing to attend the joint meeting to explain the program. Carlisle would be eligible for a \$20,000 grant to help the program get started. Fantasia spoke with the Finance Director who did not think a betterment system would be a problem.

Conservation Commission Coffee – Brem will attend the next meeting to explain the revisions to the local regulations which are under consideration.

Bedrosian Recognition – the Board would like to do this at a joint meeting with the Selectmen.

There was no further business. Meeting voted to adjourn at 10:00 pm.

Respectfully submitted,

Linda Fantasia
Recorder